Response of
Wisconsin Power and Light Company
to
The Public Service Commission of Wisconsin
Data Request No. 3.22

Docket Number:	05-CE-137
Date of Request:	March 11, 2009
Information Requested By:	Ken Detmer
Date Responded:	March 23, 2009
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Witness: (If other than Author)	

Data Request No. 3.22:

Provide updated EGEAS analysis without NED 3 and consideration of the other changes discussed during the latest technical discussion between staff and WP&L modeling experts.

Response:

Data Request Response No. 3.22 Attachment A provides a table that summarizes the results of updated EGEAS analyses. Data Request Response No. 3.22 Attachment B outlines the planning alternatives included in the EGEAS analyses. Data Request Response No. 3.22 Attachment C (**CONFIDENTIAL**) is a CD, which is being delivered to the PSCW today, containing the electronic files of the EGEAS analyses.

WPL will run and provide several additional sensitivities regarding the renewal of the Kewaunee PPA.

Wisconsin Power and Light Response to Public Service Commission of Wisconsin Staff Data Request No. 3.22 Attachment A Updated Analysis
Present Value of the Revenue Requirements

		Future Scenarios*					
		Future 1 **Base Assumptions** **No Monetized** **CO2 Allowances** **SO2 and NOX cost levels at new forecasted levels**	**Future 2** **Base Assumptions and** **Monetized CO2 Allowances** -Based upon Staff's NED 3 CO2 ramp approach ($10/ton beginning in 2015, ramping to $25/ton in 2025 (2008 dollars)) -Nuclear Available after 2020. -SO2 and NOX cost levels at new forecasted levels	**Future 3** **High Retention Value** -Gas prices high -Coal prices Low - Purchase power market prices consistent with gas prices - SO2 and NOX cost levels at new forecasted levels - Project costs are 10% below the estimate - Nuclear Available after 2020	**Future 4** **Low Retention Value** -Gas prices low -Coal prices high - Purchase power market prices consistent with gas prices - SO2 and NOX cost levels at new forecasted levels - Project costs are 20% above the estimate - Nuclear Available after 2020	**Future #5** **Carbon Constrained Future A** **Beginning with CO2 Monetization in 2015:** **-CO2 Monetized at Future 2 levels** -Gas prices high, corresponding with CO2 monetization -Coal prices low, corresponding with CO2 monetization - Purchase power market prices consistent with gas and coal prices -SO2 and NOX cost levels at new forecasted levels -Demand and energy forecast at base levels -Nuclear Available after 2020 -Policy changes consistent with carbon constrained environment: -Elimination of the wind PTC corresponding with CO2 monetization -25% RPS by 2025 (2%/yr 2015 to 2020: 1%/yr 2020 to 2025)	**Future #6** **Carbon Constrained Future B (consistent with WEPCO response to DR KD-2, 6630-CE-302)** **Beginning with CO2 Monetization in 2015:** **-CO2 Monetized at Future 2 levels** -Gas prices high, corresponding with CO2 monetization -Coal prices low, corresponding with CO2 monetization - Purchase power market prices consistent with gas and coal prices -SO2 and NOX cost levels at new forecasted levels -Demand and energy forecast at base levels -Nuclear Available after 2020 -Policy changes consistent with carbon constrained environment: -Elimination of the wind PTC corresponding with CO2 monetization -25% RPS by 2025 (2%/yr 2015 to 2020: 1%/yr 2020 to 2025)
Plans	**Plan 1:** **Install SCR in 2011**	**$14,553.8 M** **B08_2045_RETIRE_5E2C**	**$17,189.2 M** **B0845_5E2_P1F2G**	**$14,966.3 M** **B0845_5E2_P1F3C**	**$15,289.9 M** **B0845_5E2_P1F4H**	**$18,026.7 M** **B0845_5E2_P1F5D**	**$15,976.2 M** **B0845_5E2_P1F6D**
	Plan 2: **Do not install SCR and retire Edgewater Unit 5 at the end of 2012**	**$15,100.5 M** **B08_2012_RETIRE_5E2C**	**$17,510.8 M** **B0812_5E2_P2F2C**	**$15,633.7 M** **B0812_5E2_P2F3C**	**$15,636.6 M** **B0812_5E2_P2F4F**	**$18,597.5 M** **B0812_5E2_P2F5C**	**$16,355.4 M** **B0812_5E2_P2F6C**
	Plan 3: **Install SCR in 2011 and Bag House and Scrubber in 2014**	**$14,847.6 M** **B08_2045_RETIRE_5E2_BHC**	**$17,478.1 M** **B08BH_5E2_P3F2C**	**$15,240.4 M** **B08BH_5E2_P3F3C**	**$15,616.9 M** **B08BH_5E2_P3F4D**	**$18,303.0 M** **B08BH_5E2_P3F5C**	**$16,255.0 M** **B08BH_5E2_P3F6C**

* PVRR values stated in table cells are in millions of 2008 dollars, discounted present value, with a 35 year extension.

Data Request No. 3.22 Attachment B
Status of Planning Alternatives In the Edgewater Unit 5 SCR Updated EGEAS model

EGEAS Planning Alternative Number	Included as a Planning Alternative	EGEAS Planning Alternative Name
1	**Yes**	New CT 155MW
2	**Yes**	NEW JOU CC 300MW
5	**Yes**	COL4 SUP 60% JOU
6	**Yes**	GREENF PC 50% JOU
9	**Yes**	IGCC GEQU 60% JOU
11	**Yes**	NEWBIOMASS 300 MW
12	**Yes**	PEAK PUR 1-YEAR
21	**Yes**	BENT TREE WIND
24	**Yes**	DSM UR-116
26	**Yes**	DSM AMI
27	**Yes**	RPS35 WIND 100MW
28	**Yes**	NEW CC 264MW
29	**Yes**	RPS38 WIND 100MW
30	**Yes**	NucAP1000J GF
3	**No**	NED3 CFB 326 MW
4	**No**	COL3 SUB 300 MW
7	**No**	GREENF SUB 300 MW
8	**No**	GREENF AFB 300 MW
10	**No**	IGCC SHEL 60% JOU
13	**No**	WISC WIND 100MW
14	**No**	IA NM WIND 100MW
15	**No**	DSM SHARE SAVGS
16	**No**	DSM BUS EN FOCUS
17	**No**	DSM RES EN FOCUS
18	**No**	DSM DLC PROGRAM
19	**No**	IA PPA WIND 2009
20	**No**	IA PPA WIND 2010
22	**No**	BASE 350 ECONOMY
23	**No**	OTHR 450 ECONOMY
25	**No**	DSM HIGH LEVEL